NEW INFORMATION ON THE AEGEAN SEA ICHTHYOFAUNA. Apostolos I. SINIS and **Athanasios S. KOUKOURAS**, University of Thessaloniki, Department of Zoology, P.O. Box 134, 54006 Thessaloniki, GREECE.

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The existing information on the Aegean Sea ichthyofauna was scattered until the first comprehensive list appeared (Economidis, 1973). Fifteen years later, a check list of marine fishes of Greece was published by Papaconstantinou (1988) including all the up to date information on the Aegean ichthyofauna. As far as we know, two more species have been recorded since then from the Aegean Sea: *Microichthys coccoi* Rüppell (Matter *et al.*, 1988) and *Sudis hyalina* Rafinesque (Papaconstantinou, 1990). The examination of a fish collection coming from different areas of the Aegean Sea, between August 1975 and June 1991, showed that three of the species identified had not been recorded as elements of the Eastern Mediterranean ichthyofauna. For three other species information on their habitat and diet emerged.

Fig. 1. - Map of the Aegean Sea indicating sampling stations (1 to 5).

All these specimens have been deposited in the Museum of the Department of Zoology, Aristotle University of Thessaloniki (MZDAUT, n°114). New elements for the ichthyofauna of the area are the following three species.

Diaphus metopoclampus (Cocco, 1829). Family Myctophidae.

One mature female, collected in the north coast of Crete Island, station 5 (Fig. 1) at a depth of 600 m, with an agassiz trawl, during daylight, June 20, 1990.

Meristic characters. - Fin rays, D = 16, P = 10, V = 8, A = 16; lateral line scales, 40; gill rakers, 23; photophores; Dn and Vn in succession, AOa 7, AOp 6, Prc 4.

Morphometric characters (mm). - Total length, 75.0; standard length, 61.5; head length, 16.8; eye diameter, 4.5; predorsal distance, 25.1; base of dorsal fin, 15.0; base of anal fin, 13.5; distance P-V, 10.0; distance V-A, 15.3; preventral distance, 24.4; preanal distance, 39.5.

According to Hulley (1984), no information on its diet, reproduction, gonads, number and size of the eggs existed up to date. The female individual collected in August had its gonads at the V maturity stage, weighed 0.167 g and contained about 4000 eggs measuring about 0.4 mm. Its stomach was full with 24 individuals of the euphasid *Euphasia krohni* (Brandt). This carnivorous and filter feeding euphasid lives during the daylight over the deep water muds, in depths of 400- 600 m feeding mainly on crustaceans (Alten, 1967; Mauchline, 1980, 1984). This finding in the stomach of the captured individual confirms the claim of Nafpaktitis *et al.* (1977) that this mesopelagic fish-species is possibly epibenthic.

The distribution of *D. metopoclampus* in the Mediterranean until now was limited in its western basin and especially in the straits of Messina and Sicilia (Tortonese, 1970; Krefft and Bekker, 1973; Bauchot, 1987; etc.). A detailed distribution of this species in the Mediterranean and Atlantic is given by Nafpaktikis *et al.* (1977). Hulley (1984) characterized it as a probably rare migrant in the Mediterranean. So we have to accept that its present finding in the Aegean is its first record from the Eastern Mediterranean.

Nerophis maculatus Rafinesque, 1810. Family Syngnathidae.

Two individuals collected in the coast of Chalkidiki Peninsula, station 2 (Fig. 1) at a depth of 0.9 m, in a *Zostera marina* meadow, August 11, 1975.

Meristic characters. - Both individuals with 28 rays in the dorsal fin.

Morphometric characters (mm). - Total length, 111 and 128; head length, 7.7 and 8.5; eye diameter, 1.1; preorbital distance, 2.8 and 3.2; postorbital distance, 3.8 and 4.1; predorsal distance, 32.4 and 35.8; base of dorsal fin, 9.3 and 11.2.

According to Carus (1893), the distribution of this species was restricted in the Western and Central Mediterranean (Mallorca, Alger, Marseille, Nizza, Genova, Napoli, Sicilia, Venezia, Dalmazia). Since then, its presence has been reported also from the Eastern Mediterranean, off the coasts of Israel (Ben Tuvia, 1971). Consequently, its finding in the coast of Chalkidiki Peninsula is its first record from the Aegean and the second from the Eastern Mediterranean. The few records of this species are due not only to its rareness, but also to its habitat because it lives in shallow waters where the fishery investigations are restricted and also because it mimics the eelgrass or algae with which it is usually associated. Dawson (1986) reports generally coastal waters as the habitat of this species.

Pseudocaranx dentex (Schneider, 1801). Family Carangidae.

Five individuals, collected in Kavala Gulf, station 1 (Fig. 1) at a depth of 40 - 60 m, July 25, 1977.

Meristic characters. - Fin rays, D1 = I-VIII, D2 = I-27; P = 17, V = 6, A = II-I-23; lateral line scales, 30; gill rakers, 37.

Morphometric characters (mm). - Total length, 14.3-38.5; standard length, 11.6-31.5; head length, 4.8-12.1; predorsal distance, 5.3-13.5; base of 1st dorsal fin, 1.8-4.3; base of 2nd dorsal fin, 4.7-10.9; distance P-V, 0.0-0.5; distance V-A, 2.0-5.6; preventral distance, 5.7-14.3; preanal distance, 7.2-19.4.

This species is characterized by Smith-Vaniz (1986) as not common in the Mediterranean. In the South Aegean it was known only from Saronikos Gulf (Melas, 1947, according to Papaconstantinou, 1982), Rafina coast (Panagiotopoulos, 1916) and Dodecanese Islands (Tortonese, 1947). So its finding in Kavala Gulf is its first report from the North Aegean Sea.

The finding of the three following species in the Aegean gives additional information on their distribution or their habitat and their diet.

Lepadogaster candollei Risso, 1810. Family Gobiesocidae.

One individual collected in Chalkida coast, station 4 (Fig. 1), August 9, 1991, at a depth of 0.3 m and at a distance of 2 m from a well sheltered beach, on a substrate of pebbles and cobbles (diameter of 4-256 mm). Its total length is 7.1 cm In its stomach, an individual of the anomuran decapod *Cestopagurus timidus* was found inside a gastropod shell. According to Briggs (1986) there were no data on its habitat and diet. In the N. Aegean it was found only off Samothraki Island and in the S Aegean off Rhodes Island and in Korinthiakos Gulf (Economidis and Bauchot, 1976). This species is considered rare, but this should be attributed partly to the lack of intensive sampling in its habitat located in shallow waters, out of the range of commercial and research activities.

Syngnathus typhle Linnaeus, 1758. Family Syngnathidae.

One mature female individual (carrying 192 eggs with diameter of 2 mm) collected in Porto-Koufo Bay, station 3 (Fig. 1), August 3, 1975, at a depth of about 2 m, in a *Zostera marina* meadow. Its total length is 24.5 cm. In its stomach, 2 individuals of the shrimp *Palaemon elegans* were found. No information existed on its feeding habits (Dawson, 1986). In the N. Aegean Sea it was known only from Kavala and Strymonikos Gulfs (Economidis and Bauchot, 1976). Also known from various areas of the S. Aegean (Papaconstantinou, 1988).

Nerophis ophidion (Linnaeus, 1758) Family Syngnathidae.

One individual collected in Porto-Koufo Bay, station 3 (Fig. 1), August 3, 1975, at a depth of 3 m, in a *Zostera marina* meadow. Its total length is 16 2 cm. Heldreich (1878) first reported that this species is living in the Greek seas without mentioning a certain locality. This record has been used by various authors (Bini, 1960; Economidis, 1973; Papaconstantinou, 1988) in listing the Greek ichthyofauna. So, the finding of this species in the above area is its first confirmed record from the Aegean

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